



Interoffice Memo
Office of Design Policy & Support

DATE: 12/17/2018

FILE: P.I.# 0013922
Hall County / GDOT District 1 - Gainesville
CS 991/Elachee Road Bridge Replacement @ I-985

FROM:  for Brent Story, State Design Policy Engineer

TO: SEE DISTRIBUTION

SUBJECT: APPROVED CONCEPT REPORT

Attached is the approved Concept Report for the above subject project.

Attachment

Distribution:

Hiral Patel, Director of Engineering
Joe Carpenter, Director of P3
Albert Shelby, Director of Program Delivery
Carol Comer, Director, Division of Intermodal
Darryl VanMeter, Assistant Director of P3/State Innovative Delivery Administrator
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Attn: Systems & Classification Branch
Benny Walden, Statewide Location Bureau Chief
Brent Cook, District Engineer
Brandon Kirby, District Preconstruction Engineer
Robby Oliver, District Utilities Manager
Darrell Richardson, Project Manager
BOARD MEMBER - 9th Congressional District

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
LIMITED SCOPE PROJECT CONCEPT REPORT**

| | | |
|---|--------------------------------|--|
| Project Type: <u>Bridge Replacement</u> | P.I. Number: <u>0013922</u> | |
| GDOT District: <u>1</u> | County: <u>Hall</u> | |
| Federal Route Number: <u>N/A</u> | State Route Number: <u>N/A</u> | |
| Project Number: _____ | N/A | |

This project will replace the existing bridge on CR 472/Elachee Drive over I-985 in Gainesville. The proposed bridge will consist of one 11-foot lane in each direction with a 4-foot bike lane, a 2-foot gutter, and a 8.5-foot sidewalk on north side. The south side will be a 6-foot rural shoulder.

Submitted for approval:

| | |
|---|---------------------|
| <u>Brad Gowen</u> Brad Gowen, P.E., Holt Consulting Company, LLC | 8/2/2018 |
| <u>Humberly W. Yarbett</u> | Date <u>8/30/18</u> |

| | |
|--|--------------------|
| State Program Delivery Administrator <u>[Signature]</u> <u>(SHP) C.L.B.</u> | Date <u>8-8-18</u> |
| GDOT Project Manager | Date _____ |

Recommendation for approval:

| | |
|--|-----------------------|
| State Environmental Administrator <u>ERIC DUFF*/EKP</u> | Date <u>9/5/2018</u> |
| <u>ANDREW PEARSON*/EKP</u> | Date <u>9/28/2018</u> |
| FOR State Traffic Engineer <u>BILL DUVALL*/EKP</u> | Date <u>9/4/2018</u> |
| State Bridge Engineer | Date _____ |
| <u>BRANDON KIRBY*/EKP</u> | Date <u>9/17/2018</u> |
| FOR District 1 Engineer | Date _____ |

- ☒ MPO Area: This project is consistent with the MPO adopted Regional Transportation Plan (RTP)/Long Range Transportation Plan (LRTP).
- ☐ Rural Area: This project is consistent with the goals outlined in the Statewide Transportation Plan (SWTP) and/or is included in the State Transportation Improvement Program (STIP).

| | |
|--|-----------------------|
| State Transportation Planning Administrator <u>PAUL TANNER*/EKP</u> | Date <u>9/18/2018</u> |
|--|-----------------------|

Approval:

| | |
|--|----------------------|
| Concur: <u>Hilal Buteb</u> GDOT Director of Engineering | Date <u>12/14/18</u> |
|--|----------------------|

| | |
|---|----------------------|
| Approve: <u>Margaret B. Puckle</u> GDOT Chief Engineer | Date <u>12/17/18</u> |
|---|----------------------|

**- RECOMMENDATION ON FILE*

PROJECT LOCATION MAP

CR 472/Elachee Drive over I-985 Bridge Replacement P.I. # 0013922 Hall County



PLANNING & BACKGROUND DATA

Project Justification Statement: The bridge on CR 472 (Elachee Drive) over SR 419 (I-985), Structure ID 139-0055-0, was built in 1967. This bridge consists of four (4) spans of continuous steel beams on concrete caps with concrete columns. The bridge was designed using an HS-15 vehicle, which is below current design standards. This bridge has a gutter-to-gutter width of only 23.9 feet. The overall condition of this bridge would be classified as fair. The deck is in satisfactory condition with minor cracking and scaling on the topside. The superstructure is in satisfactory condition with sagging of the steel beams. The substructure is in fair condition with minor to moderate cracking in the concrete caps and columns. Due to the age of the structure, the structural integrity of the bridge pertaining to the design vehicle, and the narrow gutter-to-gutter width, replacement of this 51-year-old bridge is recommended.

(Prepared by Bridge Office)

Existing conditions: The existing typical section of CR 472/Elachee Drive consists of one 10-foot travel lane in each direction. The rural outside shoulders are 6 feet wide. Additionally, CR 472/Elachee Drive consists of Structure ID 139-0055-0 which is a bridge that has four (4) spans of continuous steel beams on concrete caps with concrete columns. The bridge deck width is 30.4 feet. The total length of the bridge is 300 feet.

Other projects in the area: N/A

MPO: Gainesville

TIP #: GH-116

Congressional District(s): 9

Federal Oversight: ☐ PoDI ☒ Exempt ☐ State Funded ☐ Other

Projected Traffic: AADT 24 HR T: 7.5%
Current Year (2018): 225 Open Year (2024): 250 Design Year (2044): 325
Traffic Projections Performed by: *Michael Baker International*
Date approved by the GDOT Office of Planning: 6/13/2018

Functional Classification (Mainline): Urban Local Road

Complete Streets - Bicycle, Pedestrian, and/or Transit Standards Warrants:

Warrants met: ☐ None ☒ Bicycle ☒ Pedestrian ☐ Transit
Pedestrian Warrant #2, Bicycle Warrant #3

Pavement Evaluation and Recommendations

Initial Pavement Evaluation Summary Report Required? ☒ No ☐ Yes
Feasible Pavement Alternatives: ☒ HMA ☐ PCC ☐ HMA & PCC

DESIGN AND STRUCTURAL

Description of Proposed Project: This project will replace the existing bridge that was built in 1967 over I-985 in Gainesville. The proposed bridge will be 250 feet long, consisting of two 11-foot lanes, a 4-foot bike lane, a 2-foot gutter, and a 8.5-foot sidewalk on the north side. The south side will be a 6-foot rural shoulder. The total deck width will be 45.33 feet. The roadway approaches will consist of one 11-foot lane in each direction, one 4-foot bike lane with a 14-foot wide urban shoulder which includes 2.5-foot curb and gutter, 2-foot grass strip, and 8-foot sidewalk on the north side. The south side will be a 10-foot rural shoulder of which 6.5' will be paved. The proposed bridge will be constructed in one stage on an offset parallel alignment to the north of the existing bridge and it will accommodate present and future vertical clearance requirements. Mechanically Stabilized Earth (MSE) walls will be constructed parallel with I-985 and will accommodate a future widening and clearzone requirements. The proposed project length is approximately 0.3 miles.

Major Structures:

| Structure ID | Existing | Proposed |
|--------------|--|--|
| 139-0055-0 | The existing two-lane bridge is 300 feet long with a total bridge deck width of 30.4 feet. | The proposed bridge will be 250 feet long, consisting of two 11-foot lanes, a 4-foot bike lane, a 2-foot gutter, and a 8.5-foot sidewalk on the north side. The south side will be a 6-foot rural shoulder. The total deck width will be 45.33 feet. |

Accelerated Bridge Construction (ABC) techniques anticipated: ☒ No ☐ Yes
Accelerated Bridge Construction techniques are not recommended for this project because of the low traffic and the increased construction costs.

Mainline Design Features: CR 472/Elachee Drive

| Feature | Existing | Policy | Proposed |
|--|---------------|------------------------|--------------------------------------|
| Typical Section | | | |
| - Number of Lanes | 2 | | 2 |
| - Lane Width(s) | 10 ft | 10-12 ft | 11 ft |
| - Median Width & Type | N/A | N/A | N/A |
| - Outside Shoulder Width | 6 ft | 8 ft | 10 ft south side |
| - Border Area Width | N/A | 10-16 ft | 14ft north side |
| - Outside Shoulder Slope | 6% | 2% | 2% |
| - Inside Shoulder Width | N/A | N/A | N/A |
| - Sidewalks | N/A | 5 ft; 5.5 ft on bridge | 8 ft; 8.5 ft on bridge on north side |
| - Auxiliary Lanes | N/A | | N/A |
| - Bike Accommodations | N/A | 4 ft | 4 ft |
| Posted Speed | 25 mph | | 25 mph |
| Design Speed | 25 mph | | 25 mph |
| Minimum Horizontal Curve Radius | 400 ft | 154 ft | 525 ft |
| Maximum Superelevation Rate | 6% | 4% | 2.8% |
| Maximum Grade | 8% | 12% | 7.5% |
| Access Control | By Permit | By Permit | By Permit |
| Design Vehicle | N/A | | SU |
| Pavement Type | HMA | | HMA |

*According to current GDOT design policy if applicable

Is the project located on a NHS roadway? ☒ No ☐ Yes

Design Exceptions/Design Variances to GDOT and/or FHWA Controlling Criteria anticipated: N/A

Design Variances to GDOT Standard Criteria anticipated:N/A

Lighting required: ☒ No ☐ Yes

Off-site Detours Anticipated: ☒ No ☐ Undetermined ☐ Yes

Transportation Management Plan [TMP] Required: ☐ No ☒ Yes

If Yes: Project classified as: ☒ Non-Significant
TMP Components Anticipated: ☒ TTC

INTERCHANGES AND INTERSECTIONS

Major Interchanges/Intersections: N/A

Intersection Control Evaluation (ICE) Required: ☒ No ☐ Yes

Roundabout Peer Review Required: ☒ No ☐ Yes ☐ Completed – Date:

UTILITY AND PROPERTY

Railroad Involvement: N/A

Utility Involvements: Georgia Power Distribution, AT&T, City of Gainesville Water and Sewer

SUE Required: ☒ No ☐ Yes

Public Interest Determination Policy and Procedure recommended? ☒ No ☐ Yes

Right-of-Way: Existing width: 100-170 ft. Proposed width: 100-180 ft.
Required Right-of-Way anticipated: ☐ None ☒ Yes ☐ Undetermined
Easements anticipated: ☐ None ☒ Temporary ☐ Permanent ☐ Utility ☐ Other

| | |
|---|----------------------|
| Anticipated total number of impacted parcels: | <u>2</u> |
| Displacements anticipated: | Businesses: <u>0</u> |
| | Residences: <u>0</u> |
| | Other: <u>0</u> |
| Total Displacements: | <u>0</u> |

Impacts to USACE property anticipated? ☒ No ☐ Yes ☐ Undetermined

CONTEXT SENSITIVE SOLUTIONS

Issues of Concern: Chicopee Woods Area Park Commission requested a 10-11 foot sidewalk for all users on the northside.

Context Sensitive Solutions Proposed: The proposed solution separates the bicycles from the pedestrians with a 4-foot bicycle lane. This solution avoids a required barrier obstruction in the roadway and provides an 8'-6" walking width across the bridge. The 8'-6" dimension gives approximately enough room for three (3) people to walk side by side comfortably according to the Pedestrian and Streetscape Guide.

ENVIRONMENTAL AND PERMITS

Anticipated Environmental Document:

| | | | |
|-------|---------------------------------|--|-----------------------------------|
| NEPA: | <input type="checkbox"/> PCE | <input checked="" type="checkbox"/> CE | <input type="checkbox"/> EA-FONSI |
| GEPA: | <input type="checkbox"/> Type A | <input type="checkbox"/> Type B | <input type="checkbox"/> None |

Level of Environmental Analysis:

- ☒ The environmental considerations noted below are based on preliminary desktop or screening level environmental analysis and are subject to revision after the completion of resource identification, delineation, and agency concurrence.
- ☐ The environmental considerations noted below are based on the completion of resource identification, delineation, and agency concurrence.

Water Quality Requirements:

MS4 Compliance – Is the project located in an MS4 area? ☐ No ☒ Yes

Is Non-MS4 water quality mitigation anticipated? ☒ No ☐ Yes

Environmental Permits, Variances, Commitments, and Coordination anticipated:

- A CWA Sec. 404 Permit is not anticipated to be required.
- A buffer variance is not anticipated to be required.
- ESA Sec. 7 informal consultation is anticipated to be required to address potential impacts to bat habitat; Special Provision 107.23H would be included in the construction contract.
- Supplemental Specification 107.23G would be included in the contract for the protection of bats and migratory birds on bridges.
- Coordination with GDNR-HPD/GASHPO under Section 106 of National Historic Preservation Act is not anticipated to be required.
- Coordination with FHWA and the Chicopee Woods Area Park Commission is anticipated under Section 4(f) of the DOT Act.

Air Quality:

Is the project located in an Ozone Non-attainment area? ☒ No ☐ Yes
Carbon Monoxide hotspot analysis required? ☒ No ☐ Yes

NEPA/GEPA Comments & Information: Categorical Exclusion

Ecology – The proposed project is located in the Southern Inner Piedmont Level IV Ecoregion of Georgia, within the predicted range of two federally protected mammals (northern long-eared bat and Indiana bat). Due to the presence of potentially suitable summer roosting habitat within the project study area, surveys for these bats are required. Based on a preliminary evaluation, ESA Section 7 consultation with the USFWS will be required.

The USFWS early coordination response letter stated that the range of black-spored quillwort includes Hall County; however, there are no records of granite outcrops in the project vicinity. Field surveys have confirmed that there is no potentially suitable habitat for black-spored quillwort located within the project study area. The letter also stated that the range of Georgia aster includes Hall County; however, there are no known occurrences of this species within the vicinity of the proposed project, and it is very unlikely to occur in the area. Therefore, no surveys for this species are required.

The GDNR-WRD early coordination response letter included records of known occurrences within 3 miles of the project study area for four state-protected plant species: pink ladyslipper, goldenseal, Indian olive, and Ozark bunchflower. Potentially suitable habitat for pink ladyslipper and Indian olive has been identified within the project study area; therefore, species-specific surveys for these two plants are required during the appropriate survey season. The GDNR-WRD response letter also included a known occurrence of one state-protected aquatic species, the Chattahoochee crayfish. Field surveys did not result in the identification of any perennial streams; therefore, there is no potentially suitable habitat for the Chattahoochee crayfish located within the project study area.

Additional correspondence with GDNR-WRD stated that the nearest bald eagle nest to the project study area is located 8 miles west on Lake Lanier. Because the bald eagle is a state-protected species, as well as protected under the federal Migratory Bird Treaty Act (MBTA) and the federal Bald and Golden Eagle

Protection Act, the letter requested that the agency be contacted if new nests or eagles are observed within the project study area. The agency also stated that there are no records of golden eagles near the project study area.

The USFWS and GDNWRD recommended that the ecological investigations include inspections of all bridges, culverts, and structures to determine if there is evidence of migratory bird species using the structure for nesting, and to determine if the structure is being utilized as a roost by bats. Therefore, surveys were conducted under the bridges and within large culverts located within the project corridor. Evidence of barn swallow (*Hirundo rustica*) nesting activity was observed underneath the existing Elachee Drive bridges during the field investigation; therefore, Supplemental Specification 107.23G for the protection of bats and migratory birds on bridges would apply to this project. The GDNWRD also provided recommendations for best management practices during construction to protect water quality in the vicinity of the bridge crossing.

The field survey resulted in the identification of one jurisdictional wetland, no streams, and no open waters within the project study area. The wetland observed is a palustrine forested wetland located in the southwest quadrant of the Elachee Drive crossing over I-985. Any impacts to this resource would require the preparation and submittal of a Section 404 Permit application to the USACE. Compensatory mitigation in the form of the purchase of compensatory wetland mitigation credits may be required, depending upon the severity of any anticipated impacts to this water of the U.S.

Archaeology – Field survey has been completed, and a Short Form Negative Findings Report has been approved by GDOT.

History – Field survey identified one resource, GDOT Bridge No. 139-0055-0; recommended not eligible for listing on the NRHP.

Air & Noise – A Type III Noise Assessment and an Air Assessment will be performed during Phase II of the project.

Public Involvement – A Public Information Open House is scheduled for May 10, 2019

COORDINATION, ACTIVITIES, RESPONSIBILITIES, AND COSTS

Is Federal Aviation Administration (FAA) coordination anticipated? ☒ No ☐ Yes

Project Meetings: March 13, 2018 – Design team meeting with GDOT PM to discuss preferred concept and alternatives (meeting minutes attached). Concept Team Meeting: July 17, 2018

Other coordination to date:

| Project Activity | Party Responsible for Performing Task(s) |
|---|---|
| Concept Development | Michael Baker International, Holt Consulting Company, LLC |
| Design | Michael Baker International, Holt Consulting Company, LLC |
| Right-of-Way Acquisition | GDOT |
| Utility Coordination (Preconstruction) | GDOT |
| Utility Relocation (Construction) | Utility |
| Letting to Contract | GDOT |
| Construction Supervision | GDOT |
| Providing Material Pits | Contractor |
| Providing Detours | Contractor |
| Environmental Studies, Documents, & Permits | Michael Baker International |
| Environmental Mitigation | GDOT |
| Construction Inspection & Materials Testing | GDOT |

Project Cost Estimate and Funding Responsibilities:

| | PE Activities | | ROW** | Reimbursable Utilities | CST* | Total Cost |
|------------------|---------------|------------------------|-------|------------------------|----------------|---|
| | PE Funding | Section 404 Mitigation | | | | |
| Funded By | GDOT | GDOT | GDOT | GDOT | GDOT | |
| \$ Amount | \$500,000 | N/A | TBD | TBD <i>#70,000</i> | \$5,080,631.46 | <i>#5,650,631.46</i> \$5,580,631.46 |
| Date of Estimate | 12/9/2016 | N/A | TBD | TBD <i>10/25/2018</i> | 10/25/2018 | |

*CST Cost includes: Construction, Engineering and Inspection, Contingencies and Liquid AC Cost Adjustment.

**Programmed cost is \$250,000.00 and is not included in the Total Cost in the table. The ROW estimate requested on 3/22/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

ALTERNATIVES DISCUSSION

| | | | |
|---|------------------|------------------------------|--|
| Preferred Alternative: Construct the proposed bridge in one stage to the north of the existing bridge maintaining two lanes of traffic for the duration of the project. | | | |
| Estimated Property Impacts: | 2 parcels | Estimated Total Cost: | <i>#5,650,631.46</i> \$5,580,631.46 |
| Estimated ROW Cost: | \$TBD** | Estimated CST Time: | 12 months |
| Rationale: This Alternative was selected because it has the least amount of construction cost and the bridge can be constructed in one stage reducing the time of construction. The original Preferred Alternative was to stage construct the bridge in two stages while maintaining one lane of traffic utilizing a temporary signal. After feedback from the Concept Team Meeting, the Preferred Alternative was re-evaluated and the one stage construction to the north was chosen. During construction, this Alternative maintains two lanes of traffic and accommodates pedestrians. | | | |

**Programmed cost is \$250,000.00 and is not included in the Total Cost in the table. The ROW estimate requested on 3/22/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

| | | | |
|--|------------|------------------------------|------------|
| No-Build Alternative: Retain the existing bridge | | | |
| Estimated Property Impacts: | N/A | Estimated Total Cost: | N/A |
| Estimated ROW Cost: | N/A | Estimated CST Time: | N/A |
| Rationale: This alternative would not meet the project justification as the structural integrity of the bridge is insufficient. | | | |

| | | | |
|--|------------------|------------------------------|-----------------------|
| Alternative 1: Stage construct the proposed bridge 22 feet north from the existing to the proposed centerline maintaining one lane of traffic and accommodates pedestrian traffic during construction utilizing a temporary signal. | | | |
| Estimated Property Impacts: | 2 parcels | Estimated Total Cost: | \$5,707,690.51 |
| Estimated ROW Cost: | TBD** | Estimated CST Time: | 18 months |
| Rationale: This Alternative was not selected because of the increased construction costs and time of construction. Furthermore, this Alternative only maintains one lane of traffic while utilizing a temporary signal in stage 2. | | | |

**Programmed cost is \$250,000.00 and is not included in the Total Cost in the table. The ROW estimate requested on 3/22/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

| | | | |
|---|------------------|------------------------------|-----------------------|
| Alternative 2: Stage construct the proposed bridge 16 feet north from the existing to the proposed centerline maintaining one lane of traffic utilizing a temporary signal. | | | |
| Estimated Property Impacts: | 2 parcels | Estimated Total Cost: | \$5,774,686.24 |
| Estimated ROW Cost: | TBD** | Estimated CST Time: | 18 months |
| Rationale: This Alternative was not selected because of the increased construction costs and time of construction. Pedestrian traffic is not accommodated during construction. Furthermore, this Alternative only maintains one lane of traffic while utilizing a temporary signal in stage 2. | | | |

**Programmed cost is \$250,000.00 and is not included in the Total Cost in the table. The ROW estimate requested on 3/22/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

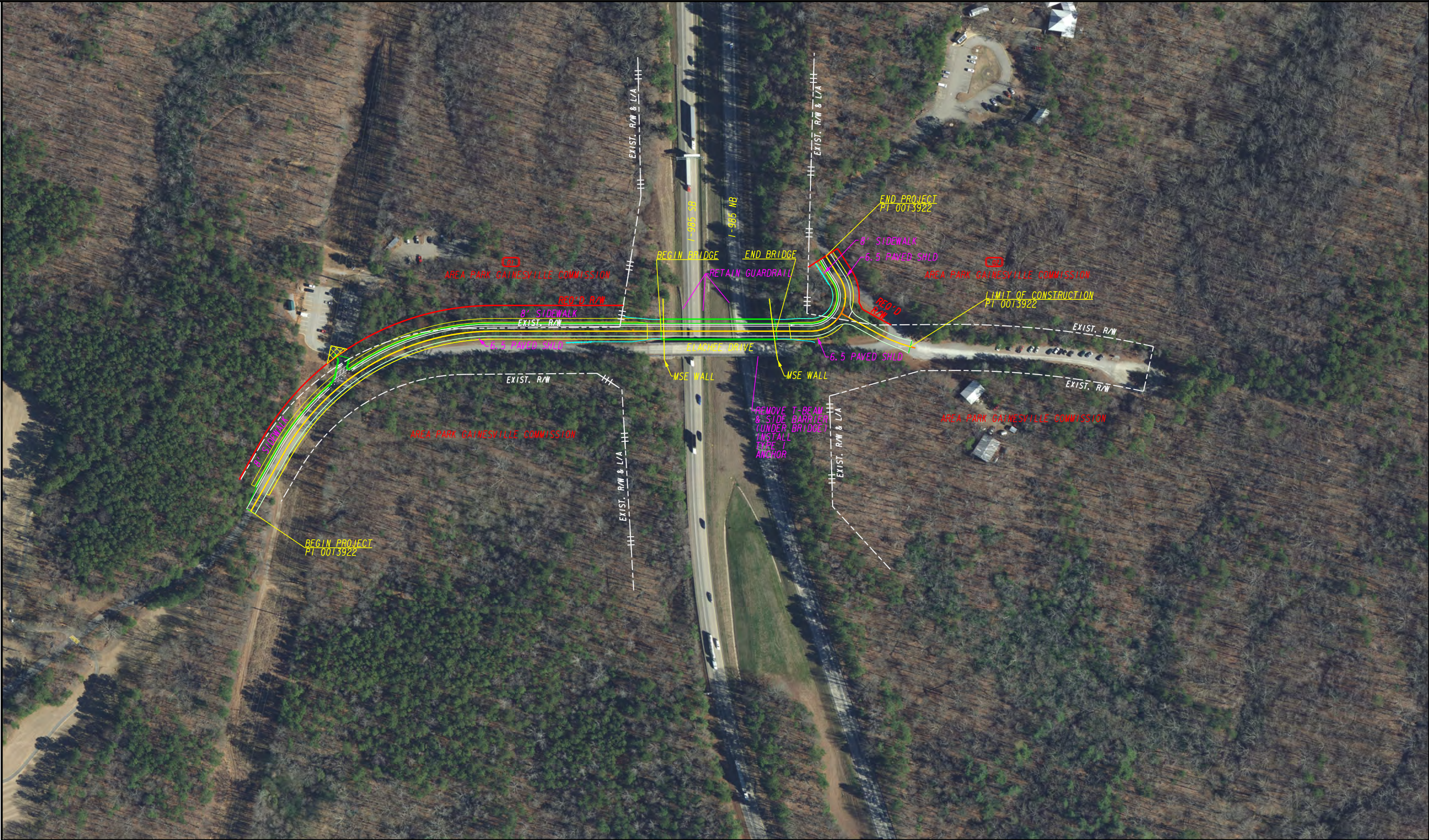
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|--|------------------|------------------------------|-----------------------|
| Alternative 3: Stage construct the proposed bridge 35 feet south from the existing to the proposed centerline maintaining two lanes of traffic and accommodates pedestrian traffic during construction. | | | |
| Estimated Property Impacts: | 3 parcels | Estimated Total Cost: | \$5,811,281.46 |
| Estimated ROW Cost: | TBD** | Estimated CST Time: | 18 months |
| Rationale: This Alternative was not selected because of the increased construction costs and time of construction. | | | |

**Programmed cost is \$250,000.00 and is not included in the Total Cost in the table. The ROW estimate requested on 3/22/2018. ROW costs will be updated upon receipt of estimate from ROW Office.

Additional Comments/ Information:N/A

LIST OF ATTACHMENTS/SUPPORTING DATA

1. Concept Layout
2. Typical sections
3. Cost Estimates
4. Traffic assignments
5. Project Meeting Minutes
6. Concept Team Meeting Minutes
7. Letter from Chicopee Woods Area Park Commission
8. Bridge Inventory Sheets
9. MS4



-CONSTRUCT ENTIRE BRIDGE IN ONE STAGE
TO THE NORTH
-PEDESTRIAN ACCOMMODATIONS
PROVIDED DURING CONSTRUCTION



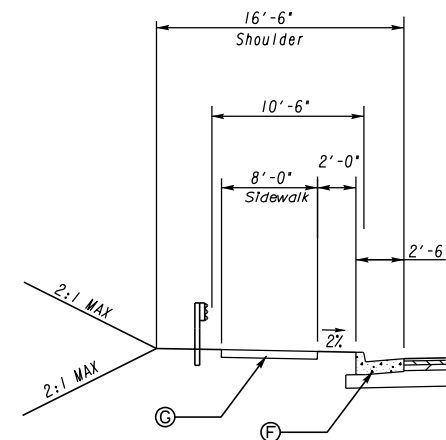
REVISION DATES

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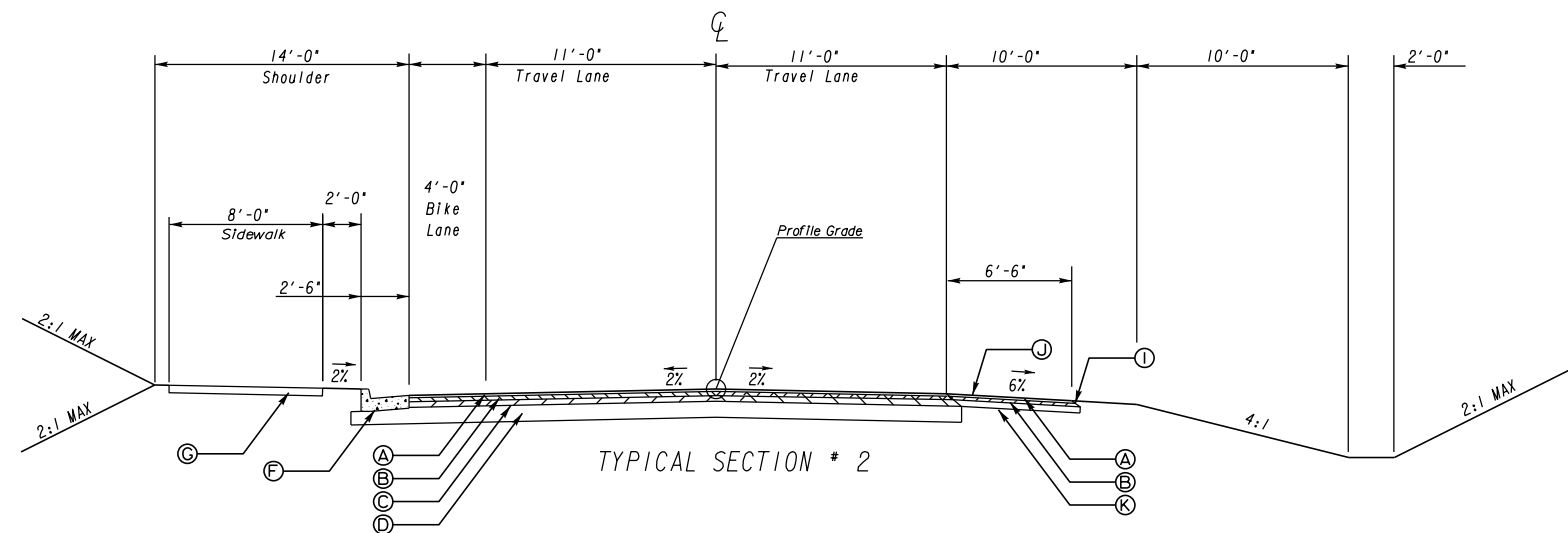
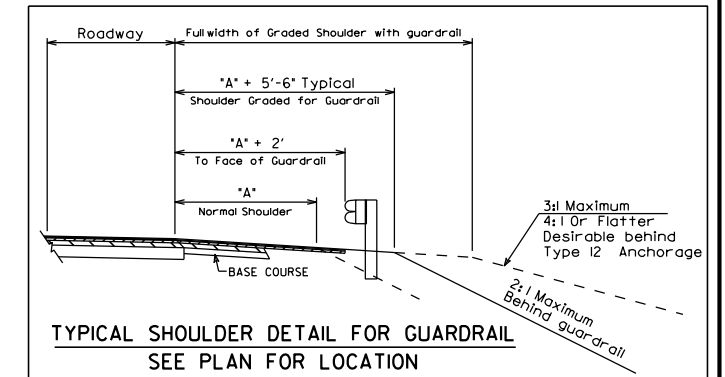
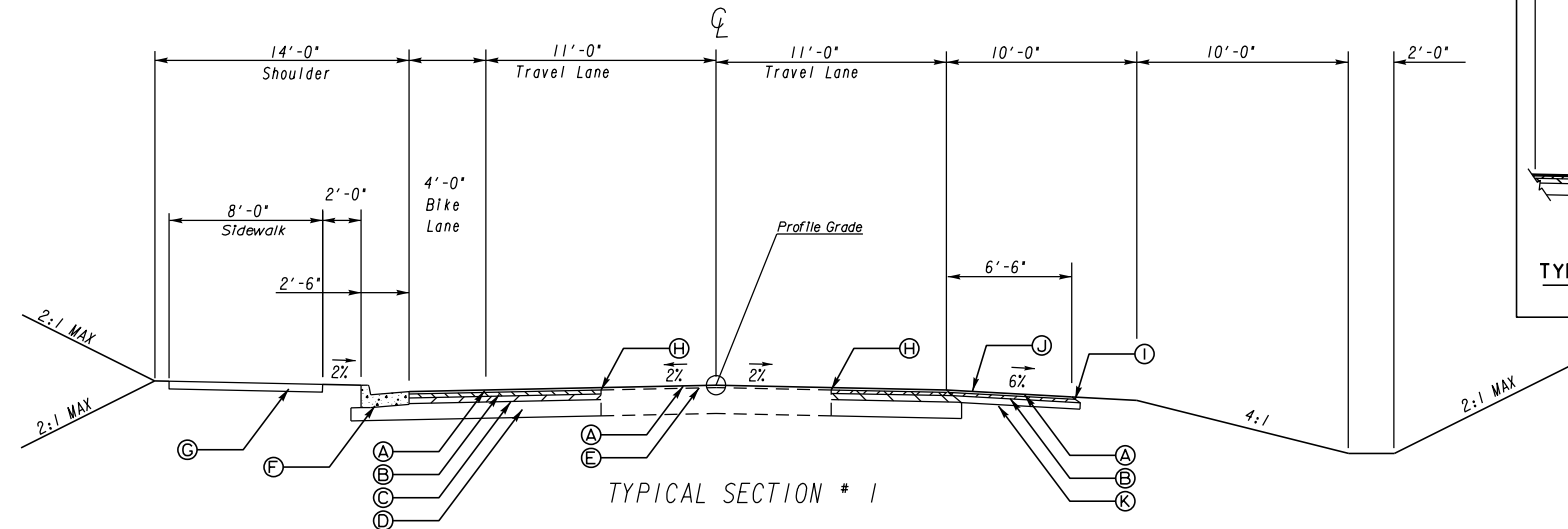
CONSTRUCTION PLAN
PREFERRED ALTERNATE

| | | | | |
|--------------|--|-------|--|-------------|
| CHECKED: | | DATE: | | DRAWING No. |
| BACKCHECKED: | | DATE: | | |
| CORRECTED: | | DATE: | | |
| VERIFIED: | | DATE: | | |

13-0001

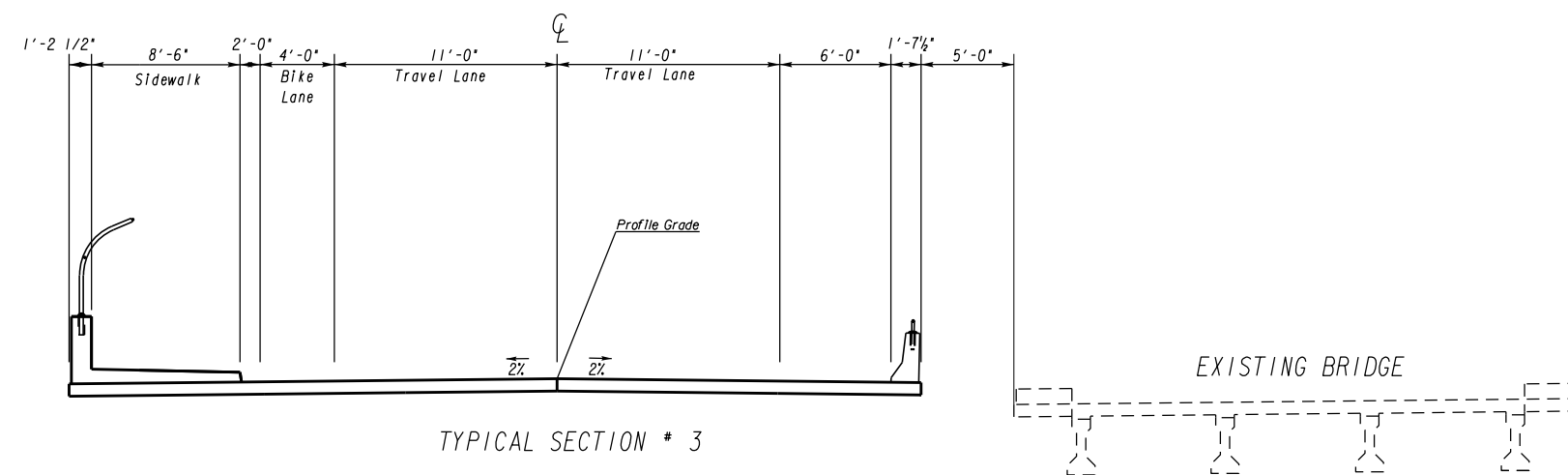


TYPICAL SHOULDER DETAIL FOR GUARDRAIL
WITH 8' SIDEWALK



REQUIRED PAVEMENT

- (A) RECYCLED ASPH CONC 9.5 mm SUPERPAVE, TP 11,
INCL BITUM MATL & H LIME (@ 135 LB/SY)
- (B) RECYCLED ASPH CONC 19 mm SUPERPAVE, GP 1 OR 2,
INCL BITUM MATL & H LIME (@220 LB/SY)
- (C) RECYCLED ASPH CONC 25 mm SUPERPAVE, GP 1 OR 2,
INCL BITUM MATL & H LIME (@ 330 LB/SY)
- (D) GRADED AGGREGATE BASE, 12", INCL MATL
- (E) RECYCLED ASPH LEVELING, INCL BITUM MATL & H LIME
- (F) CONC. CURB AND GUTTER, TP 2, 8"X30"
- (G) CONC. SIDEWALK, 4 IN
- (H) PAVEMENT REINFORCEMENT FABRIC STRIPS, TP 2, 18 INCH WIDTH
- (I) PAVEMENT EDGE TREATMENT, ASPHALT, GA. DETAIL P-7
- (J) INDENTATION RUMBLE STRIPS-GROUND IN PLACE (SKIP)
- (K) GRADED AGGREGATE BASE, 6", INCL MATL



| REVISION DATES | | | TYPICAL SECTIONS | | | | |
|----------------|--|--|------------------|--|-------|--|----------------------------|
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| | | | | | | | |
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| | | | | | | | |
| | | | CHECKED: | | DATE: | | DRAWING No. 05-0001 |
| | | | BACKCHECKED: | | DATE: | | |
| | | | CORRECTED: | | DATE: | | |
| | | | VERIFIED: | | DATE: | | |

FILE P.I. No. 0013922

OFFICE Program Delivery

PROJECT DESCRIPTION

I-985 at CS 991/Elachee Road in Gainesville

DATE October 25, 2018

From: Kimberly Nesbitt, State Program Delivery Administrator

To: Erik Rohde, P.E., State Project Review Engineer
via Email Mailbox: CostEstimatesandUpdates@dot.ga.gov**Subject: REVISIONS TO PROGRAMMED COSTS**

MGMT LET DATE March 15, 2021

PROJECT MANAGER Darrell Richardson

MGMT ROW DATE March 15, 2020

PROGRAMMED COSTS (TPro W/OUT INFLATION)**LAST ESTIMATE UPDATE**

CONSTRUCTION \$ 3,300,000.00

DATE

RIGHT OF WAY \$ 250,000.00

DATE

UTILITIES \$

DATE

REVISED COST ESTIMATES

CONSTRUCTION* \$ 5,080,631.46

RIGHT OF WAY \$ TBD

UTILITIES \$ TBD

*Cost Contains 15 % Contingency

REASONS FOR COST INCREASE AND CONTINGENCY JUSTIFICATION:

CONTINGENCY SUMMARY

| | | | |
|--|-----------------|--|------|
| A. CONSTRUCTION COST ESTIMATE: | \$ 4,184,541.99 | Base Estimate From CES | |
| B. ENGINEERING AND INSPECTION (E & I): | \$ 209,227.10 | Base Estimate (A) x | 5 % |
| C. CONTINGENCY: | \$ 659,065.36 | Base Estimate (A + B) x | 15 % |
| | | See % Table in "Risk Based Cost Estimation" Memo | |
| D. TOTAL LIQUID AC ADJUSTMENT: | \$ 27,797.01 | Total From Liquid AC Spreadsheet | |
| E. CONSTRUCTION TOTAL: | \$ 5,080,631.46 | (A + B + C + D = E) | |

REIMBURSABLE UTILITY COSTS

| UTILITY OWNER | REIMBURSABLE COST |
|---------------|-------------------|
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| TOTAL | \$ - |

ATTACHMENTS: (File Copy in the Project Cost Estimate Folder)

Detailed Cost Estimate Printout From GDOT 411
Liquid AC Adjustment Spreadsheet

Consultant Validation of Final QC/QA for Construction Cost Estimate Used in This Revision To Programmed Costs

COMPANY NAME:

Michael Baker International

VALIDATION OF FINAL QC/QA

PRINTED NAME:

Greg Mayo, PE

TITLE:

Project Manager

SIGNATURE:



DATE:

5-4-2018

STATE HIGHWAY AGENCY

DATE : 10/25/2018
PAGE : 1

JOB ESTIMATE REPORT

JOB NUMBER : 0013922-PREFER SPEC YEAR: 13
DESCRIPTION: ELACHEE DRIVE AT I-985

ITEMS FOR JOB 0013922-PREFER

| LINE | ITEM | ALT | UNITS | DESCRIPTION | QUANTITY | PRICE | AMOUNT |
|------|----------|-----|-------|---|----------|------------|------------|
| 0005 | 150-1000 | | LS | TRAFFIC CONTROL - 0013922 | 1.000 | 196000.00 | 196000.00 |
| 0014 | 150-5010 | | EA | TRAF CTRL,PORTABLE IMPACT ATTN | 3.000 | 8423.19 | 25269.58 |
| 0015 | 153-1300 | | EA | FIELD ENGINEERS OFFICE TP 3 | 1.000 | 86792.10 | 86792.11 |
| 0020 | 163-0232 | | AC | TEMPORARY GRASSING | 2.000 | 82.17 | 164.35 |
| 0025 | 163-0240 | | TN | MULCH | 54.000 | 257.28 | 13893.15 |
| 0030 | 163-0300 | | EA | CONSTRUCTION EXIT | 4.000 | 1601.49 | 6405.98 |
| 0040 | 163-0520 | | LF | CONSTR AND REMOVE TEMP PIPE SLOPE DRAIN | 500.000 | 22.37 | 11187.33 |
| 0045 | 163-0527 | | EA | CNST/REM RIP RAP CKDM,STN P RIPRAP/SN BG | 35.000 | 389.65 | 13637.85 |
| 0050 | 163-0541 | | EA | CONSTR & REM ROCK FILTER DAMS | 2.000 | 790.14 | 1580.28 |
| 0055 | 163-0550 | | EA | CONS & REM INLET SEDIMENT TRAP | 5.000 | 213.68 | 1068.42 |
| 0065 | 165-0030 | | LF | MAINT OF TEMP SILT FENCE, TP C | 1955.000 | 0.96 | 1878.93 |
| 0070 | 165-0041 | | LF | MAINT OF CHECK DAMS - ALL TYPES | 350.000 | 3.27 | 1146.19 |
| 0080 | 165-0101 | | EA | MAINT OF CONST EXIT | 4.000 | 634.56 | 2538.28 |
| 0085 | 165-0105 | | EA | MAINT OF INLET SEDIMENT TRAP | 5.000 | 70.75 | 353.78 |
| 0090 | 165-0110 | | EA | MAINT OF ROCK FILTER DAM | 2.000 | 343.27 | 686.55 |
| 0095 | 167-1000 | | EA | WATER QUALITY MONITORING AND SAMPLING | 4.000 | 420.53 | 1682.16 |
| 0100 | 167-1500 | | MO | WATER QUALITY INSPECTIONS | 12.000 | 1115.47 | 13385.75 |
| 0114 | 169-0020 | | EA | ENHANCED DRY SWALE | 225.000 | 255.00 | 57375.00 |
| 0115 | 171-0030 | | LF | TEMPORARY SILT FENCE, TYPE C | 3910.000 | 4.85 | 18967.64 |
| 0120 | 210-0100 | | LS | GRADING COMPLETE - 0013922 | 1.000 | 655000.00 | 655000.00 |
| 0125 | 310-1101 | | TN | GR AGGR BASE CRS, INCL MATL | 4620.000 | 36.54 | 168850.56 |
| 0130 | 318-3000 | | TN | AGGR SURF CRS | 50.000 | 38.96 | 1948.15 |
| 0134 | 402-1812 | | TN | RECYL AC LEVELING,INC BM&HL | 50.000 | 80.44 | 4022.44 |
| 0135 | 402-3103 | | TN | REC AC 9.5 MM SP,TPII,GP2, INCL BM & H L | 420.000 | 94.14 | 39542.04 |
| 0140 | 402-3190 | | TN | RECYL AC 19 MM SP,GP 1 OR 2 ,INC BM&HL | 530.000 | 98.45 | 52180.01 |
| 0145 | 402-3121 | | TN | RECYL AC 25MM SP,GP1/2,BM&HL | 630.000 | 96.56 | 60833.11 |
| 0150 | 413-0750 | | GL | TACK COAT | 530.000 | 2.53 | 1344.23 |
| 0160 | 433-1000 | | SY | REINF CONC APPROACH SLAB | 240.000 | 188.95 | 45348.51 |
| 0174 | 441-6222 | | LF | CONC CURB & GUTTER/ 8X30TP2 | 1540.000 | 28.41 | 43758.19 |
| 0175 | 441-0004 | | SY | CONC SLOPE PAV, 4 IN | 330.000 | 62.29 | 20557.53 |
| 0180 | 441-0104 | | SY | CONC SIDEWALK, 4 IN | 1075.000 | 62.64 | 67345.99 |
| 0184 | 441-0204 | | SY | PLAIN CONC DITCH PAVING, 4 IN | 160.000 | 48.16 | 7706.08 |
| 0185 | 441-0301 | | EA | CONC SPILLWAY, TP 1 | 2.000 | 2145.04 | 4290.10 |
| 0190 | 446-1100 | | LF | PVMT REF FAB STRIPS, TP2,18 INCH WIDTH | 510.000 | 6.95 | 3545.02 |
| 0194 | 456-2015 | | GLM | INDENT. RUMB. STRIPS - GRND-IN-PL (SKIP) | 1.000 | 4760.37 | 4760.37 |
| 0195 | 540-1101 | | LS | REM OF EX BR, STA NO - 211+00 | 1.000 | 456300.00 | 456300.00 |
| 0200 | 543-9000 | | LS | CONSTR OF BRIDGE COMPLETE - 0013922 | 1.000 | 1598450.00 | 1598450.00 |

STATE HIGHWAY AGENCY

DATE : 10/25/2018

PAGE : 2

JOB ESTIMATE REPORT

| | | | | | | |
|------|----------|------|---|----------|----------|----------|
| 0205 | 544-1000 | LS | DECK DRAIN SYSTEM, BR NO - 1 | 1.000 | 55000.00 | 55000.00 |
| 0210 | 550-1180 | LF | STM DR PIPE 18,H 1-10 | 600.000 | 50.31 | 30189.64 |
| 0215 | 550-4218 | EA | FLARED END SECT 18 IN, ST DR | 2.000 | 645.48 | 1290.97 |
| 0219 | 576-1010 | LF | SLOPE DRAIN PIPE, 10 IN | 100.000 | 29.73 | 2973.46 |
| 0220 | 603-2181 | SY | STN DUMPED RIP RAP, TP 3, 18 | 50.000 | 78.40 | 3920.09 |
| 0225 | 603-7000 | SY | PLASTIC FILTER FABRIC | 50.000 | 4.84 | 242.32 |
| 0230 | 620-0100 | LF | TEMP BARRIER, METHOD NO. 1 | 1000.000 | 33.57 | 33570.28 |
| 0240 | 627-1000 | SF | MSE WALL FACE, 0 - 10 FT HT, WALL NO - 1 | 1360.000 | 39.22 | 53347.82 |
| 0245 | 627-1000 | SF | MSE WALL FACE, 0 - 10 FT HT, WALL NO - 2 | 1480.000 | 39.22 | 58054.98 |
| 0250 | 627-1010 | SF | MSE WALL FACE, 10 - 20 FT HT, WALL NO - 1 | 906.000 | 42.20 | 38236.96 |
| 0255 | 627-1010 | SF | MSE WALL FACE, 10 - 20 FT HT, WALL NO - 2 | 1129.000 | 42.20 | 47648.49 |
| 0260 | 627-1020 | SF | MSE WALL FACE, 20 - 30 FT HT, WALL NO - 1 | 111.000 | 43.05 | 4778.91 |
| 0265 | 627-1020 | SF | MSE WALL FACE, 20 - 30 FT HT, WALL NO - 2 | 268.000 | 43.05 | 11538.26 |
| 0273 | 627-1100 | LF | COPING A, WALL NO - 1&2 | 340.000 | 92.20 | 31349.38 |
| 0274 | 627-1180 | CY | ADDITIONAL MSE BACKFILL | 420.000 | 38.36 | 16111.64 |
| 0275 | 636-1033 | SF | HWY SIGNS, TP1MAT,REFL SH TP 9 | 50.000 | 20.04 | 1002.43 |
| 0280 | 636-1036 | SF | HWY SGN,TP1MAT,REFL SH TP 11 | 30.000 | 22.78 | 683.54 |
| 0285 | 636-2070 | LF | GALV STEEL POSTS, TP 7 | 135.000 | 8.45 | 1141.64 |
| 0290 | 641-1100 | LF | GUARDRAIL, TP T | 183.000 | 64.81 | 11860.30 |
| 0295 | 641-1200 | LF | GUARDRAIL, TP W | 290.000 | 22.41 | 6501.11 |
| 0300 | 641-5001 | EA | GUARDRAIL ANCHORAGE, TP 1 | 3.000 | 1038.96 | 3116.89 |
| 0305 | 641-5015 | EACH | GUARDRL ANCHOR, TP 12A, 31 IN, TANG, E/A | 2.000 | 2979.25 | 5958.52 |
| 0310 | 653-0110 | EA | THERM PVMT MARK, ARROW, TP 1 | 3.000 | 85.96 | 257.91 |
| 0315 | 653-0320 | EA | THERM PVMT MKG, SYM, TP 4 | 3.000 | 90.58 | 271.74 |
| 0320 | 653-1501 | LF | THERMO SOLID TRAF ST 5 IN, WHI | 3970.000 | 0.72 | 2872.37 |
| 0325 | 653-3501 | GLF | THERMO SKIP TRAF ST, 5 IN, WHI | 155.000 | 0.53 | 83.18 |
| 0330 | 653-1502 | LF | THERMO SOLID TRAF ST, 5 IN YEL | 2815.000 | 0.67 | 1895.40 |
| 0335 | 653-1704 | LF | THERM SOLID TRAF STRIPE,24,WH | 30.000 | 8.80 | 264.18 |
| 0340 | 653-1804 | LF | THERM SOLID TRAF STRIPE, 8,WH | 185.000 | 2.44 | 451.62 |
| 0345 | 654-1003 | EA | RAISED PVMT MARKERS TP 3 | 85.000 | 3.88 | 330.31 |
| 0350 | 657-1085 | LF | PRF PL SD PVT MKG,8,B/W,TP PB | 930.000 | 7.24 | 6737.26 |
| 0355 | 657-6085 | LF | PRF PL SD PVMT MKG,8,B/Y,TPPB | 620.000 | 7.33 | 4546.14 |
| 0360 | 668-1100 | EA | CATCH BASIN, GP 1 | 5.000 | 2922.37 | 14611.88 |
| 0365 | 700-6910 | AC | PERMANENT GRASSING | 3.000 | 615.92 | 1847.79 |
| 0370 | 700-7000 | TN | AGRICULTURAL LIME | 8.000 | 13.38 | 107.09 |
| 0375 | 700-8000 | TN | FERTILIZER MIXED GRADE | 2.000 | 664.55 | 1329.11 |
| 0380 | 700-8100 | LB | FERTILIZER NITROGEN CONTENT | 125.000 | 4.17 | 521.96 |
| 0385 | 716-2000 | SY | EROSION CONTROL MATS, SLOPES | 2300.000 | 2.46 | 5659.70 |
| 0390 | 711-0100 | SY | TURF REINFORCING MATTING, TP 1 | 900.000 | 3.95 | 3557.57 |
| 0395 | 643-8200 | LF | BARRIER FENCE (ORANGE), 4 FT | 1000.000 | 2.19 | 2190.43 |
| 0400 | 632-0003 | EA | CHANGEABLE MESS SIGN,PORT,TP 3 | 2.000 | 9656.36 | 19312.73 |
| 0410 | 643-1152 | LF | CH LK FEN,ZC COAT, 6', 9 GA | 350.000 | 20.31 | 7109.79 |
| 0415 | 643-8010 | EA | GATE, CHAIN LINK ZC COAT - 20 FT | 2.000 | 1135.27 | 2270.54 |

ITEM TOTAL

4184541.99

INFLATED ITEM TOTAL

4184541.99

JOB ESTIMATE REPORT

=====

TOTALS FOR JOB 0013922-PREFER

| | |
|------------------------------|------------|
| ESTIMATED COST: | 4184541.99 |
| CONTINGENCY PERCENT (0.0): | 0.00 |
| ESTIMATED TOTAL: | 4184541.99 |
| ----- | |

PROJ. NO.

P.I. NO.

DATE

0013922

10/25/2018

CALL NO.

INDEX (TYPE)

DATE

INDEX

REG. UNLEADED

Oct-18

\$ 2.724

DIESEL

\$ 3.126

LIQUID AC

\$ 553.00

Link to Fuel and AC Index:

<http://www.dot.ga.gov/doingbusiness/Materials/Pages/asphaltcementindex.aspx>**LIQUID AC ADJUSTMENTS****PA=[((APM-APL)/APL)]xTMTxAPL****Asphalt**

Price Adjustment (PA)

27041.7

\$

27,041.70

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$

884.80

Monthly Asphalt Cement Price month project let (APL)

\$

553.00

Total Monthly Tonnage of asphalt cement (TMT)

81.5

| ASPHALT | Tons | %AC | AC ton |
|-----------|-------------|------|-------------|
| Leveling | 50 | 5.0% | 2.5 |
| 12.5 OGFC | | 5.0% | 0 |
| 12.5 mm | | 5.0% | 0 |
| 9.5 mm SP | 420 | 5.0% | 21 |
| 25 mm SP | 630 | 5.0% | 31.5 |
| 19 mm SP | 530 | 5.0% | 26.5 |
| | 1630 | | 81.5 |

BITUMINOUS TACK COAT

Price Adjustment (PA)

\$

755.31

\$

755.31

Monthly Asphalt Cement Price month placed (APM)

Max. Cap

60%

\$

884.80

Monthly Asphalt Cement Price month project let (APL)

\$

553.00

Total Monthly Tonnage of asphalt cement (TMT)

2.276403489

Bitum Tack

| Gals | gals/ton | tons |
|------|----------|------------|
| 530 | 232.8234 | 2.27640349 |

PROJ. NO.

P.I. NO.

DATE

0013922

10/25/2018

CALL NO.

BITUMINOUS TACK COAT (surface treatment)

| | | | | | | | | |
|--|--|----------|-----|----|--------|---|----|---|
| Price Adjustment (PA) | | | | | | 0 | \$ | - |
| Monthly Asphalt Cement Price month placed (APM) | | Max. Cap | 60% | \$ | 884.80 | | | |
| Monthly Asphalt Cement Price month project let (APL) | | | | \$ | 553.00 | | | |
| Total Monthly Tonnage of asphalt cement (TMT) | | | | | 0 | | | |

| | | | | | |
|--------------------|----|---------|------|----------|------|
| Bitum Tack | SY | Gals/SY | Gals | gals/ton | tons |
| Single Surf. Trmt. | | 0.20 | 0 | 232.8234 | 0 |
| Double Surf.Trmt. | | 0.44 | 0 | 232.8234 | 0 |
| Triple Surf. Trmt | | 0.71 | 0 | 232.8234 | 0 |
| | | | | | 0 |

| | | |
|----------------------------|----|-----------|
| TOTAL LIQUID AC ADJUSTMENT | \$ | 27,797.01 |
|----------------------------|----|-----------|

Interoffice Memo

Concept Utility Report

Project Number: [Click here to enter text.](#)

District: Hall

County: Hall

Prepared by: Doris Abernathy

P.I. # 0013922

Date: October 22, 2018

Project Description: Bridge Replacement at I-985 and Elachee Rd in Gainesville

The information provided herein has been gathered from Georgia811 and/or field visits and serves as an estimate. Nothing contained in this report is to be used as a substitute for 1st Submission or SUE.

Are SUE services recommended? No

Level: ☐A ☐B ☐C ☐D

Public Interest Determination (PID):

☐Automatic ☐Mandatory ☐Consideration ☒No Use ☐Exempt

Is a separate utility funding phase recommended? No

Potential Project (Schedule/Budget) Impacts: N/A

Capital Improvement Projects (Utilities) Anticipated in the Area: None anticipated

Project Specific Recommendations for Avoidance/Mitigation: N/A

Right of Way Coordination: If permanent easements are negotiated include Utility Clause.

Environmental Coordination: N/A

Additional Remarks: Lee Irminger, Manager of the Elachee Natural Preserve, wants to be kept in the loop. No wells are in the area and the Gainesville Water Department has two inch water pipes to the facilities. No gas or sewer facilities in the area. Village and park have septic tanks. ATT is under 985 near the bridge and Georgia Power supplies electricity. Lee wants to be involved in future meetings. Gainesville does not believe to be in conflict with project but will be sending formal request to attach to bridge - current situation doesn't allow for fire hydrants to the park.

Utilities have facilities within the project limits.

Utilities have been identified using Georgia811 and/or field visits.

| Facility Owner | Facility Owner Contact Email Address | Existing Facilities/ Appurtenances | General Description of Location | Facilities to Avoid <i>approx. limits</i> | Facilities Retention Recommended <i>approx. limits</i> | Comments |
|---------------------|--------------------------------------|------------------------------------|---------------------------------|--|---|---|
| ATT-Bellsouth | Clay Johnson Cj3079@att.com | Telecom | N/A | N/A | N/A | Click here to enter text. |
| Georgia Power Dist. | Galen Davis GDavis@Southernco.com | Electricity | N/A | N/A | N/A | Click here to enter text. |
| City of Gainesville | Jason Perry jperry@gainesville.org | Water | N/A | N/A | N/A | Click here to enter text. |

Note: To add additional rows, click the bottom right corner of the box above, then click the blue + that will appear. Please add additional rows prior to entering text.

Department of Transportation State of Georgia

INTERDEPARTMENT CORRESPONDENCE

FILE Hall County **OFFICE** Planning
P.I. # 0013922 **DATE** June 13, 2018

FROM Cynthia L. VanDyke, State Transportation Planning Administrator

TO Kimberly Nesbitt, State Program Delivery Engineer
Attention: Darrell Richardson

SUBJECT **Reviewed** Design Traffic Data Report for Elachee Drive bridge replacement over I-985

We have reviewed the Design Traffic for the above project. The Design Traffic is approved. The approved Design Traffic is furnished in the attached document: 2018.06.12_PI 0013922_Traffic Forecasting Memo.pdf.

If you have any questions concerning this information, please contact Andre Washington at 404-631-1925.

Keith McCage
HNTB
Design Traffic Consultant to GDOT
404-946-5731

CLV/KAM

Michael Baker
I N T E R N A T I O N A L

**420 Technology Parkway
Norcross, GA 30092**

MEMORANDUM TO: Darrell Richardson
Georgia Department of Transportation, Office of Planning

FROM: William Ruhsam
Michael Baker International

DATE: May 23, 2018

SUBJECT: Traffic Assignments for PI# 0013922
Hall County, GA
Elachee Drive Bridge Replacement over I-985

Michael Baker is furnishing Traffic Assignments for the above project as follows:

BRIDGE- ID 139-0055-0

| No Build = Build | 2018 (Existing Year) | 2024 (Base Year) | 2026 (Base Year +2) | 2044 (Design Year) | 2046 (Design Year +2) |
|--------------------|-------------------------|-----------------------|------------------------|-----------------------|--------------------------|
| AADT | 225 | 250 | 250 | 325 | 350 |
| DHV (AM/PM) | 40 / 60 | 45 / 70 | 45 / 70 | 55 / 90 | 60 / 95 |
| K% (AM/PM) | 17.0% / 27.0% | Same as Existing Year | | | |
| D% (AM/PM) | 57.0% / 51.0% | | | | |
| 24 HR. T% - S.U. | 7.5% | | | | |
| 24 HR. T% - COMB. | 0.0% | | | | |
| 24 HR. T% - TOTAL | 7.5% | | | | |
| T% - S.U. (AM/PM) | 6.0% / 10.0% | | | | |
| T% - COMB. (AM/PM) | 0.0% / 0.0% | | | | |
| T% - TOTAL (AM/PM) | 6.0% / 10.0% | | | | |

If you have any questions concerning this information, please contact William Ruhsam at 678-966-6612

I-985 at Elachee Road (PI #0013922)

March 14, 2018

MEETING NOTES

Location

Michael Baker International
420 Technology Parkway Suite 150
Norcross, GA 30092

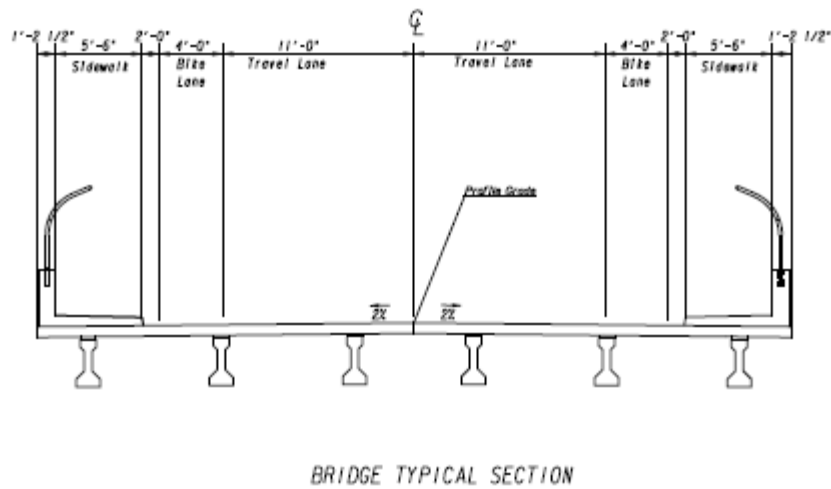
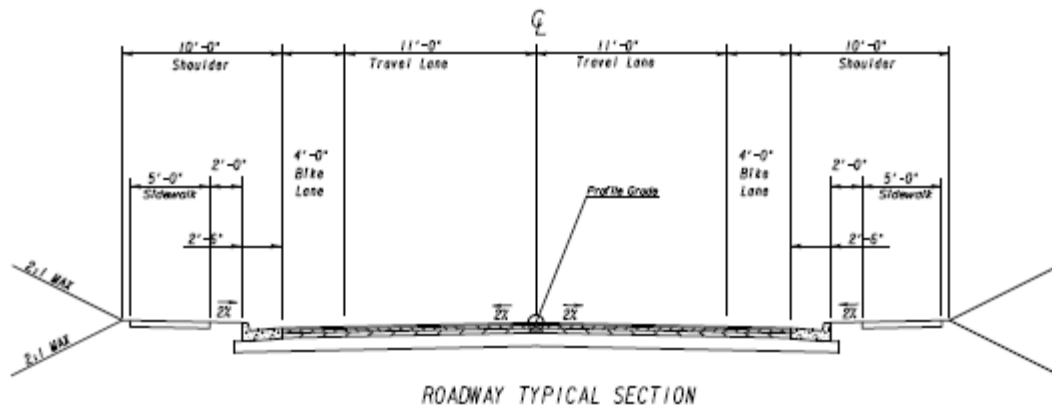
Attendees

| | | |
|--------------------|-----------------|--|
| Darrell Richardson | GDOT (PM) | drichardson@dot.ga.gov |
| Al Bowman | MBI | abowman@mbakerintl.com |
| Chad Havens | MBI | chad.havens@mbakerintl.com |
| George Manning | MBI | george.manning@mbakerintl.com |
| Mary Best | MBI | mdbest@mbakerintl.com |
| Brad Gowen | Holt Consulting | bgowen@holtconsultingco.com |

The purpose of the meeting was to discuss the different concept alternatives for the bridge replacement project below:

I-985 at Elachee Road

- The Preferred Alternative is the one-lane configuration with a temporary signal and pedestrian access during construction.
- Alternative 1 is the one-lane configuration with a temporary signal and no pedestrian access during construction.
- Alternative 2 is the two-lane configuration with pedestrian access during construction.
- Use an 8-foot minimum between structures for staging purposes.
- The agreed to final typical section is as shown below:



Action Items

1. GDOT PM to schedule Concept Team Meeting for the middle to end of May 2018
2. The ROW Estimate checklist needs to accompany the ROW layouts
3. Request Utility Estimates

Prepared by: Chad Havens
Michael Baker International
March 16, 2018



July 17, 2018 Concept Team Meeting Minutes

PI No. 0013922

TO: All attendees

FROM: Brad Gowen

Meeting Date: July 17, 2018

RE: PI 0013922 CR 472/Elachee Drive over I-985 Bridge Replacement in Gainesville

Location: GDOT District 1 – 1475 Jesse Jewell Parkway, Conference Room 114, Gainesville, GA

Purpose: Concept Team Meeting

- I. WELCOME
- II. INTRODUCTIONS – ATTENDEES INCLUDE:

Darrell Richardson, GDOT (AECOM)

drichardson@dot.ga.gov

Shane Giles, District 1 Traffic Operations

shgiles@dot.ga.gov

Judy Prince, GDOT Preconstruction

jprince@dot.ga.gov

Doris Abernathy, District 1 Utilities

dabernathy@dot.ga.gov

Brandon Kirby, GDOT District 1

bkirby@dot.ga.gov

Harold Mull, District 1 Construction

hmull@dot.ga.gov

Jason Perry, Gainesville Water

jperry@gainesville.org

Galen Davis, GPC

hdavis@southernco.com

RK Whitehead, Chicopee Woods

rkwhitehead@wdcdiecast.com

Andrea Timpone, Nature Science Center

andrea@elachee.org

Lee Irminger, Nature Science Center

lee@elachee.org

Brad Gowen, Holt Consulting Company

bgowen@holtconsultingco.com

Chad Havens, Michael Baker International

chad.havens@mbakerintl.com

George Manning, Michael Baker International

george.manning@mbakerintl.com

Mary Best, Michael Baker International

mbest@mbakerintl.com

- Brad Gowen described the need and purpose of the project as being a bridge replacement project due to the weight restrictions and the structural integrity of the existing bridge. He proceeded to go through the different aspects of the Concept Report.
- Traffic has been approved as of 6/13/2018.
- Darrell Richardson stated to remove the sentence in the Project Justification Statement that mentions the ADT as it is out of date.
- R.K. Whitehead asked how long the temporary signals would be in place during the construction staging of the project. Darrell Richardson stated the signal would be utilized for stage 1 and 2. (approximately 6 months)
- Andrea Timpone stated that the temporary signals should not cause a problem for the Nature Science Center. Andrea stated that their peak season is about all year long. The Nature Science Center also supports a small school of about 30 students which are dropped off by parents (no school bus).
- Andrea stated that there is only a 2" waterline that currently serves the Nature Center. At a minimum, the City of Gainesville would like an 8" waterline across the bridge and stubbed out on each end so in the future they could tie to it.
- Darrell asked any need for sewer? City of Gainesville stated it would be too complicated and would require a lift station.
- Power and AT&T south of the existing bridge under I-985.
- Ga Power recommended a SUE survey. Darrell stated to the District to let him know if SUE needs to be included on the project.
- Mary Best gave an overview of the Environmental Section in the Concept Report. Archaeology and history is currently under review. Assessment of Effects hopefully no adverse effects. Based on a preliminary evaluation, ESA Section 7 consultation with the USFWS will be required due to the presence of potentially suitable summer roosting habitat within the project study area. Section 4f will be coordinated due to the Elachee Nature Center is located (and leased from) the 1400-acre Chicopee Woods Nature Preserve, which is protected by a conservation easement. Air and noise screening will be required. If the wetland is impacted in the SW quadrant a 404 permit would be needed. No buffer variance would be required.
- Brandon Kirby stated to verify that the project is or is not in a non-attainment area.
- Brandon Kirby and Darrell Richardson stated to provide enough room for two additional lanes in the NB and SB directions along I-985 plus clear zone and vertical clearance to accommodate the future typical section. A center bent column will be in the median and MSE walls at the end bents.
- Darrell stated to widen to the inside assuming a median barrier.
- Brad described the alternates as presented in the Concept Report.
- Darrell stated to use \$140/SF for the bridge cost.
- Harold Mull stated to investigate an alternate to the north or south that allows the bridge to be completed in one stage. He estimated it could save \$200,000 for the bridge construction if the bridge was constructed entirely in the first stage. The construction contract time would be 12 months with the actual bridge construction of 6 months.
- R.K. Whitehead asked if the typical section could be modified to include a wider sidewalk on the northside and remove the sidewalk on the southside?

- Brandon Kirby stated yes this could be implemented. Brandon requested that the Nature Center write a letter stating exactly what typical section they would prefer.
- Nature Center asked if plantings could be included on the bridge. GDOT stated that this is not possible. Nature Center asked about a wildlife corridor and decorative fencing on the bridge. GDOT stated anything extra would need to be funded by the Nature Center.
- City of Gainesville maintains Elachee Drive.
- Nature Center did not think that Alternate 1, which is stage construction to the north with no pedestrian access across the bridge during construction, was viable due to the amount of pedestrian traffic.
- Chicopee Woods Park Commission and the Nature Science Center is very supportive of the project.

Action Items:

1. Holt Consulting to include an Alternate that builds the entire bridge in the first stage.
2. Chicopee Woods Park Commission and the Nature Science Center to write a letter to GDOT stating the typical section that they prefer.



August 20, 2018

Mr. Darrell Richardson
Bridge Program Management Team AECOM
Development Planning & Engineering
678-730-1448
Via E-Mail: DRichardson@dot.ga.gov

RE: Elachee Road Bridge replacement over I-985

Dear Mr. Richardson:

Thank you for including us in the July 17th concept team meeting for the above project.

As discussed, the Chicopee Woods Area Park Commission is in favor and fully supportive of this project. Based on the initial preliminary designs and alternates, we do have some comments and requests as the project moves forward.

All the current designs presented (primary and alternates) call for a sidewalk to be constructed on both sides of the car travel lanes for both the road approaches on each end as well as the bridge itself. However, with our experience of the functional use of the bridge by current users, we would ask if possible that as an alternative, the design incorporate a single sidewalk, 10 to 11 feet in width on the North side of the travel lanes and bridge. Because of the location of the Bike Trail parking lot, and the Elachee Nature Center, we would expect limited (if any) utilization of a sidewalk on the Southern side of the road. However, a wide sidewalk on the Northern side would be well used with striping down the center to visually separate any pedestrian or bicycle traffic. This design would also be in keeping with other "trail" layouts being incorporated throughout the County, similar to the current Highlands to Islands trail system.

Mr. Darrell Richardson, Georgia DOT
August 20, 2018

Page 2

In addition, we would appreciate that any type of visual and safety enhancements that need to be incorporated in the design be as congruent as possible with the spirit of the Chicopee Woods Conservation Area.

We feel this is a wonderful opportunity for a partnership between Chicopee Woods, Elachee Nature Science Center, and the Georgia Department of Transportation to develop a bridge replacement design that is both unique and functional, while remaining under the current budgeted amount for this project.

We look forward to further opportunity to review and discuss the designs as they progress thru the process.

Thank you again for allowing Chicopee Woods to offer our perspective for this project.

Yours truly,

A handwritten signature in blue ink, appearing to read "RK Whitehead", with a long, sweeping horizontal line extending to the right.

RK Whitehead
Chairman
Chicopee Woods Area Park Commission

CC: Elachee Nature Science Center

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:2/1/2018

Parameters: Bridge Serial Number

Bridge Serial Number: 139-0055-0

County: Hall

SUFF. RATING: 46.4

Location & Geography

Structure ID: 139-0055-0
 200 Bridge Information: 06
 *6 Feature Intersected: SR 419 (I-985 US 23)
 *7A Route Number Carried: CR00472
 *7B Facility Carried: ELACHEE ROAD
 9 Location: IN OAKWOOD
 2 GDOT District: 4841100000 - D1 DISTRICT ONE GAINESVILLE
 *91 Inspection Frequency: 24 Date: 05/25/2017
 92A Fracture Critical Insp. Freq: 0 Date: 02/01/1901
 92B Underwater Insp Freq: 0 Date: 02/01/1901
 92C Other Spc. Insp Freq: 0 Date: 02/01/1901
 * 4 Place Code: 57260
 *5A Inventory Route(O/U): 1
 5B Route Type: 4 - County
 5C Service Designation: 7- Service or Unclassified
 5D Route Number: 00472
 5E Directional Suffix: 0. Not applicable
 *16 Latitude: 34 - 14.7756
 *17 Longitude: 83 - 50.1030
 98A Border Bridge: 0 98B: GA% 00
 99 ID Number: 0000000000000000
 *100 STRAHNET: 1- The Feature is on an Interstate STRAHNET route.
 12 Base Highway Network: Yes
 13A LRS Inventory Route: 1398249500
 13B Sub Inventory Route: 0
 101 Parallel Structure: N. No parallel structure exists
 *102 Direction of Traffic: 2- Two Way
 *264 Road Inventory Mile Post: 0.00
 *208 Inspection Area: Area 01
 *104 Highway System: 1-Inventory Route is on the NHS
 *26 Functional Classification: 19- Urban - Local
 *204A Federal Route Type: 0 - Not located on a Federal Aid Route
 *204B Federal Route Number: 00000
 105 Federal Lands Highway: 0. Not applicable
 *110 Truck Route: 0- The Feature is not part of the National Network for Trucks
 217 Benchmark Elevation: 0000.00
 * Location ID No: 139-00472X-000.68N

218 Datum:

0- Not Applicable
 *19 Bypass Length: 99
 *20 Toll: 3- On a Free Road or Non-Highway
 *21 Maintenance Responsibility: 01-State Highway Agency.
 *22 Owner: 01-State Highway Agency.
 *31 Design Load: 3- HS 15
 37 Historical Significance: 5- Not eligible for the National Register of Historic Places
 205 Congressional District: 009
 27 Year Constructed: 1967
 106 Year Reconstructed: 0
 33 Bridge Median: 0-None
 34 Skew: 0
 35 Structure Flared: No
 38 Navigation Control: N- Bridge is not over water
 213 Special Steel Design: 0- Not applicable or other
 267A Type Paint Super Structure: 5- Waterborne System (Type VI or VII) Year : 1995
 267B Type Paint Sub Structure: 0- Not Applicable Year : 0000
 *42A Type of Service On: 1-Highway
 *42B Type of Service Under: 1-Highway (with or without pedestrians)
 214A Movable Bridge: 0
 214B Operator on Duty: 0
 203 Type Bridge: Z - Unknown. O. Concrete M. Steel O. Concrete
 259 Pile Encasement: 3
 *43A Structure Type Main material: 4-Steel (Continuous)
 *43B Structure Type Main Type: 2-Stringer/Multi-Beam or Girder
 45 Number of Main Spans: 4
 44 Structure Type Approach: A:0- Other B: 0- Other
 46 Number of Approach Spans: 0
 226 Bridge Curve: A: Vertical: YesB: Horizontal: No
 111 Pier Protection: N - Navigation Control item coded 0, or Feature not a waterway
 107 Deck Structure Type: 1 - C-I-P Portland Cement Concrete - Epoxy Coated Rebars
 108A Wearing Surface Type: 1. Concrete
 108B Membrane Type: 0. None
 108C Deck Protection: 8. Unknown
 265 Underwater Inspection Area: 0

Signs & Attachments

225 Expansion Joint Type: 06- Strip seal type I. (Onflex)
 242 Deck Drains: 0- None.
 243A Parapet Location: 0- None present.
 243B Parapet Height: 0.00
 243C Parapet Width: 0.00
 238A Curb Height: 0.9
 238B Curb Material: 1- Concrete.
 239A Handrail Left: 7- Aluminum.
 239B Handrail Right: 7- Aluminum.
 *240 Median Barrier Rail: 0- None.
 241A Bridge Median Height: 0
 241B Bridge Median Width: 0
 *230A Guardrail Location Direction Rear: 3- Both sides.
 *230B Guardrail Location Direction Fwrd: 3- Both sides.
 *230C Guardrail Location Opposing Rear: 0- None.
 *230D Guardrail Location Opposing Fwrd: 0- None.
 244 Approach Slab: 3- Forward and Rear.
 224 Retaining Wall: 0- None.
 233 Posted Speed Limit: 25
 236 Warning Sign: No
 234 Delineator: No
 235 Hazard Boards: No
 237A Gas: 00- Not Applicable
 237B Water: 00- Not Applicable
 237C Electric: 00- Not Applicable
 237D Telephone: 00- Not Applicable
 237E Sewer: 00- Not Applicable
 247A Lighting: Street: No
 247B Navigation: No
 247C Aerial: No
 *248 County Continuity No.: 00
 36A Bridge Railings: 2- Inspected feature meets acceptable construction date standards.
 36B Transition: 2- Inspected feature meets acceptable construction date standards.
 36C Approach Guardrail: 1- Meets current standards
 36D Approach Guardrail Ends: 1- Meets current standards

Bridge Inventory Data Listing Georgia Department of Transportation

Processed Date:2/1/2018

Bridge Serial Number: 139-0055-0

County: Hall

SUFF. RATING: 46.4

Programming Data

201 Project Number: F-013-1 (17)
 202 Plans Available: 1- Plans at General Office.
 249 Proposed Project Number: 000000000000000000000000
 250A Reconstruction Approval Status: No
 250B Route Approval Status: No
 250C Approval Status Definition: 0
 250D Approval Status Federal: 0
 251Project Identification Number: 0013922
 252 Contract Date: 02/01/1901
 260 Seismic Number: 00000
 75A Type Work Proposed: 0- Not Applicable
 75B Work Done by: 0- Initial Inventory
 94 Bridge Improvement Cost:(X\$1,000) \$1,172
 95 Roadway Improvement Cost: (X\$1,000) \$117
 96 Total Improvement Cost: (X\$1,000) \$1758
 76 Improvement Length: 0.0'
 97 Year Improvement Cost Based On: 2013
 114 Future AADT: 2355
 115 Future AADT Year: 2032

Measurements:

*29 AADT: 1570
 *30 AADT Year: 2012
 109 % Truck Traffic: 1
 * 28A Lanes On: 2
 *28B Lanes Under: 4
 210A Tracks On: 00
 210B Tracks Under: 0
 * 48 Maximum Span Length: 86
 * 49 Structure Length: 300
 51 Bridge Roadway Width: 23.900000000000002'
 52 Deck Width: 30.400000000000002'
 * 47 Total Horizontal Clearance: 23.900000000000002'
 50A Curb / Sidewalk Width Left: 2.0
 50B Curb / Sidewalk Width Right: 2.0
 32 Approach Rdwy. Width: 21.0'
***229 Approach Roadway**
Rear Shoulder Left: Width: 5 *Right Width:*2.0 Type: 8 - Grass (Dirt).
Fwd Shoulder: Left Width: 3.4 *Right Width:*3.6 Type: 8 - Grass (Dirt).
Rear Pavement: Width: 21.0 *Type:*2- Asphalt.
Forward Pavement: Width: 21.3 *Type:*2- Asphalt.
Intersection Rear: 0 *Forward:*0

Ratings and Posting

65 Inventory Rating Method: 1-Load Factor (LF)
 63 Operating Rating Method: 1-Load Factor (LF)
 66A Inventory Type: 2 - HS loading.
 66B Inventory Rating: 22
 64A Operating Type: 2 - HS loading.
 64B Operating Rating: 36

231Calculated Loads

Posting Required
 231A *H-Modified:* 21 No
 231B *Type3/Tandem:* 24 No
 231C *Timber:* 28 No
 231D *HS-Modified:* 26 No
 231E *Type 3S2:* 29 No
 231F *Piggyback:* 00 No

261 H Inventory Rating: 18
 262 H Operating Rating: 31
 67 Structural Evaluation: 5
 58 Deck Condition: 6 - Satisfactory Condition
 59 Superstructure Condition: 6 - Satisfactory Condition
 * 227 Collision Damage:
 60A Substructure Condition: 6 - Satisfactory Condition
 60B Scour Condition: N - Not Applicable

60C Underwater Condition: N - Not Applicable

71 Waterway Adequacy: Not Applicable.
 61 Channel Protection Cond.: Not Applicable.

68 Deck Geometry: 4
 69 UnderClr. Horz/Vert: 9
 72 Approach Alignment: 8-No reduction of vehicle operating speed required.
 62 Culvert: N - Not Applicable
 70 Bridge Posting Required: 5. Equal to or above legal loads
 41 Struct Open, Posted, CL: A. Open, no restriction
 * 103 Temporary Structure: No

232 Posted Loads

232A *H-Modified:* 00
 232B *Type3/Tandem:* 00
 232C *Timber:* 00
 232D *HS-Modified:* 00
 232E *Type 3s2:* 00
 232F *Piggyback:* 00
 253 Notification Date: 02/01/1901
 258 Federal Notify Date: 02/01/1901

Hydraulic Data

113 Scour Critical: N. Bridge not over waterway.
 216A Water Depth:
 216B Bridge Height:
 222 Slope Protection:
 221A Spur Dike Rear:
 221B Spur Dike Fwd:
 219 Fender System: 0- None.
 220 Dolphin:
 223A Culvert Cover: 000
 223B Culvert Type: 0- Not Applicable
 223C Number of Barrels: 0
 223D Barrel Width: 0.0
 223E Barrel Height: 0.0
 223F Culvert Length: 0.0
 223G Culvert Apron:
 39 Navigation Vertical Clearance: 0'
 40 Navigation Horizontal Clearance: 0
 116 Navigation Vertical Clear Closed: 0

53 Minimum Vertical Clearance Over Rd:

54A Under Reference Feature: H- Highway beneath structure.
 54B Minimum Clearance Under: 17' 2"

*228 Minimum Vertical Clearance

228A *Actual Odometer Direction:* 99'99"
 228B *Actual Opposing Direction:* 99'99"
 228C *Posted Odometer Direction:* 00'00"
 228D *Posted Opposing Direction:* 00'00"
 55A Lateral Underclearance Reference: H- Highway beneath structure.
 55B Lateral Underclearance on Right: 13.8
 56 Lateral Underclearance on Left: 39.4
 10A Direction of Travel for Max Min: 0
 10B Max Min Vertical Clearance: 99'99"
 245A Deck Thickness Main: 8.0
 245B Deck Thickness Approach: 0.0
 246 Overlay Thickness: 0

MS4 Concept Report Summary

Attach the following checklist information to the Concept Report Template:

-
- Is there a Project Level Exclusion that applies to this project: ☒ No ☐ Yes
- If yes, please indicate which of the following exclusions apply:
- ☐ Roadways that are not owned or operated (maintained) by GDOT may not require post-construction BMPs. Coordinate with the appropriate local government or entity to determine stormwater management requirements.
 - ☐ The project location is not within a designated MS4 area.
 - ☐ Maintenance and safety improvement projects whereby the sites are not connected and disturbs less than one acre at each individual site. This includes projects such as repaving, shoulder building, fiber optic line installation, sign addition, and sound barrier installation.
 - ☐ Projects that have their environmental documents approved or right-of-way plans submitted for approval on or before June 30th, 2012.
 - ☐ Road projects that disturb less than 1 acre or for site development projects that add less than 5,000 ft² of impervious area.
-

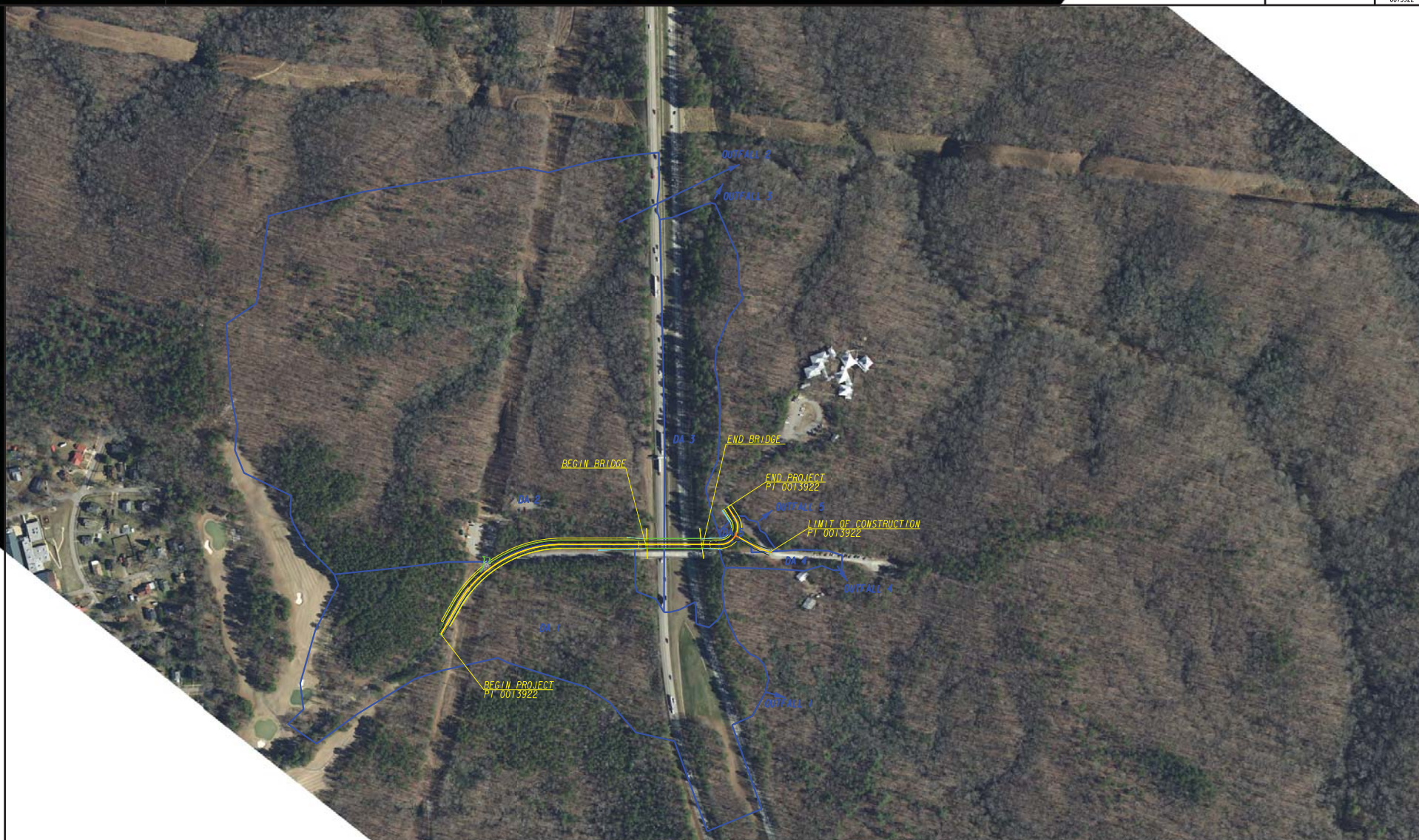
If the project has a Project Level Exclusion nothing further is needed.

If the project does not have a Project Level Exclusion use the MS4 Concept Level Design Spreadsheet to estimate the treatment volumes and flow rates, size the BMP's, complete the tables below, and include as an attachment to the Concept Report. Add additional rows, if necessary. It is understood that this information will be approximate based on available information at the time of the concept.

In MS4 designated areas, water quantity requirements may be waived for drainage areas that flow directly into surface waters that have a drainage area greater than 5 square miles.

| Drainage Area Summary | | | | | | | | | |
|-----------------------|-----------------|-------------|--------------|------------------|-------------|--------------|-----------------------------------|--|--|
| Outfall Area | Pre-Development | | | Post-Development | | | Water Quality Volume (Cubic Feet) | Channel Protection Volume (Cubic Feet) | Required Detention Volume (Cubic Feet) |
| | Tc | Weighted CN | Area (Acres) | Tc | Weighted CN | Area (Acres) | | | |
| 1 | 30 | 55 | 1.65 | 30 | 56 | 1.70 | 196 | N/A | N/A |
| 2 | 36 | 57 | 0.70 | 36 | 75 | 1.22 | 2039 | N/A | N/A |
| 3 | 19 | 98 | 0.14 | 19 | 98 | 0.26 | 470 | N/A | N/A |
| 4 | 5 | 98 | 0.11 | 5 | 98 | 0.18 | 274 | N/A | N/A |
| 5 | 5 | 98 | 0.15 | 5 | 98 | 0.16 | 39 | N/A | N/A |

| BMP Selection and Feasibility Summary | | | | | | |
|---------------------------------------|--------------------------|---------------|--------------|----------------------|----------------------------|---|
| | Outfall Level Exclusion? | | BMP Selected | Is the BMP Feasible? | | |
| | Y/N | Exclusion No. | | Y/N | Infeasibility Criteria No. | ¹ Feasibility of an Infiltration BMP |
| Outfall Area | | | | | | |
| 1 | N | N/A | E. Swale | Y | N/A | Potentially suitable |
| 2 | N | N/A | E. Swale | Y | N/A | Potentially suitable |
| 3 | N | N/A | E. Swale | Y | N/A | Potentially suitable |
| 4 | N | N/A | E. Swale | Y | N/A | Potentially suitable |
| 5 | Y | 4 | N/A | | | |



| | | | | | |
|----------------|--|-----------------------|--|-------------|--|
| REVISION DATES | | DRAINAGE AREA MAP | | | |
| | | PREFERRED ALTERNATIVE | | | |
| CHECKED: | | DATE: | | DRAWING NO. | |
| BACKCHECKED: | | DATE: | | 21-0001 | |
| CORRECTED: | | DATE: | | | |
| VERIFIED: | | DATE: | | | |